

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method comprising mechanically treating broke generated from scrap material accumulated during the production of paper products containing cellulosic fibers and a latex polymer to form fiber aggregates, wherein said latex polymer is present in said broke from about 1% to about 60% by weight, wherein said latex polymer is an adhesive latex, wherein said fiber aggregates have an average size of from about 0.5 to about 6 millimeters, wherein a first portion of said fiber aggregates are coated with said latex polymer and a second portion of said fiber aggregates remain relatively free from said latex polymer, and wherein said mechanical treatment comprises pulping said broke in a pulper.

2. (Cancelled)

3. (Original) A method as defined in claim 1, wherein said fiber aggregates have an average size of from about 1 to about 4 millimeters.

4. (Original) A method as defined in claim 1, wherein said fiber aggregates have a Canadian Standard Freeness value of from about 400 to about 800.

5. (Original) A method as defined in claim 1, wherein said fiber aggregates have a Canadian Standard Freeness value of from about 600 to about 750.

6. (Original) A method as defined in claim 1, wherein said second portion constitutes 40% or more of the total area of said fiber aggregates.

7. (Original) A method as defined in claim 1, wherein said second portion constitutes 50% or more of the total area of said fiber aggregates.

8. (Original) A method as defined in claim 1, wherein said second portion constitutes 60% or more of the total area of said fiber aggregates.

9. Canceled

10. (Previously Presented) A method as defined in claim 1, wherein said broke is diluted to a solids consistency of from about 4% to about 10% prior to said pulping.

11. (Previously Presented) A method as defined in claim 1, wherein said broke is diluted to a solids consistency of from about 6% to about 8% prior to said pulping.

12. (Previously Presented) A method as defined in claim 1, wherein said pulper is a rotor/stator type pulper.

13. (Previously Presented) A method as defined in claim 1, wherein said mechanical treatment further comprises refining said broke.

14. (Original) A method as defined in claim 1, wherein said broke is derived from a product that comprises a multi-layered paper web.

15. (Previously Presented) A method as defined in claim 14, wherein at least one surface of said product contains said latex polymer in a spaced-apart pattern.

16. (Original) A method as defined in claim 15, wherein said latex polymer covers from about 10% to about 70% of said surface.

17. (Original) A method as defined in claim 15, wherein said latex polymer covers from about 25% to about 50% of said surface.

18. (Original) A method as defined in claim 15, wherein said surface is creped.

19. Canceled

20. (Original) A method as defined in claim 1, wherein said latex polymer comprises from about 10% to about 40% by weight of said broke.

21. (Previously Presented) A method as defined in claim 1, further comprising forming a paper product that contains said fiber aggregates.

22. (Original) A method as defined in claim 21, wherein said paper product comprises a multi-layered paper web.

23. (Original) A method as defined in claim 22, wherein said fiber aggregates are incorporated into an inner layer of said multi-layered paper web.

24. (Original) A method as defined in claim 23, wherein said fiber aggregates constitute less than about 60% by weight of said inner layer.

25. (Original) A method as defined in claim 23, wherein said fiber aggregates constitute from about 10% to about 50% by weight of said inner layer.

26. (Original) A method as defined in claim 1, wherein said latex polymer is selected from the group consisting of styrene butadiene, neoprene, polyvinyl chloride, vinyl copolymers, polyamides, ethylene vinyl terpolymers, acrylates, methacrylates, and combinations thereof.

27. (Currently Amended) A method comprising:
diluting broke to a solids consistency of from about 4% to about 10%, wherein the broke is generated from scrap material accumulated during the production of paper products and contains cellulosic fibers and a latex polymer selected from the group consisting of styrene butadiene, neoprene, polyvinyl chloride, vinyl copolymers, polyamides, ethylene vinyl terpolymers, acrylates, methacrylates, and combinations thereof, wherein said latex polymer is present in said broke from about 1% to about 60% by weight;

pulping said diluted broke; and

thereafter refining said broke, wherein said pulping and said refining result in fiber aggregates having an average size of from about 0.5 to about 6 millimeters, and wherein a first portion of said fiber aggregates are coated with said latex polymer and a second portion of said fiber aggregates remain relatively free from said latex polymer.

28. (Original) A method as defined in claim 27, wherein said fiber aggregates have an average size of from about 1 to about 4 millimeters.

29. (Original) A method as defined in claim 27, wherein said second portion constitutes 40% or more of the total area of said fiber aggregates.

30. (Original) A method as defined in claim 27, wherein said second portion constitutes 60% or more of the total area of said fiber aggregates.

31. (Original) A method as defined in claim 27, wherein said broke is diluted to a solids consistency of from about 6% to about 8% prior to said pulping.

32. (Original) A method as defined in claim 27, wherein said broke is derived from a product comprising a multi-layered paper web, said product having a surface on which said latex polymer is disposed in a spaced-apart pattern.

33. (Original) A method as defined in claim 27, wherein said latex polymer comprises from about 1% to about 60% by weight of said broke.

34. (Original) A method as defined in claim 27, wherein said latex polymer comprises from about 10% to about 40% by weight of said broke.

35. (Previously Presented) A method as defined in claim 27, further comprising forming a paper product that contains said fiber aggregates.

36-46. (Cancelled)

47. (Currently Amended) A method comprising mechanically treating broke generated from scrap material accumulated during the production of paper products containing cellulosic fibers and a latex polymer to form fiber aggregates, wherein said latex polymer is present in said broke from about 1% to about 60% by weight, wherein said latex polymer is an adhesive latex polymer, wherein said fiber aggregates have an average size of from about 0.2 to about 12 millimeters and a Canadian Standard Freeness value of from about 400 to about 800, and wherein a first portion of said fiber aggregates are coated with said latex polymer and a second portion of said fiber aggregates remain relatively free from said latex polymer.

48. (Previously Presented) A method as defined in claim 47, wherein said fiber aggregates have an average size of from about 0.5 to about 6 millimeters.

49. (Previously Presented) A method as defined in claim 47, wherein said fiber aggregates have an average size of from about 1 to about 4 millimeters.

50. (Previously Presented) A method as defined in claim 47, wherein said fiber aggregates have a Canadian Standard Freeness value of from about 600 to about 750.

51. (Previously Presented) A method as defined in claim 47, wherein said second portion constitutes 40% or more of the total area of said fiber aggregates.

52. (Previously Presented) A method as defined in claim 47, wherein said second portion constitutes 60% or more of the total area of said fiber aggregates.

53. (Previously Presented) A method as defined in claim 47, wherein said mechanical treatment comprises pulping said broke in a pulper.

54. (Previously Presented) A method as defined in claim 53, wherein said broke is diluted to a solids consistency of from about 4% to about 10% prior to said pulping.

55. (Previously Presented) A method as defined in claim 53, wherein said pulper is a rotor/stator type pulper.

56. (Previously Presented) A method as defined in claim 53, wherein said mechanical treatment further comprises refining said broke.

57. (Previously Presented) A method as defined in claim 47, wherein said broke is derived from a product that comprises a multi-layered paper web.

58. (Previously Presented) A method as defined in claim 57, wherein at least one surface of said product contains said latex polymer in a spaced-apart pattern.

59. (Previously Presented) A method as defined in claim 58, wherein said surface is creped.

60. (Previously Presented) A method as defined in claim 47, wherein said latex polymer comprises from about 1% to about 60% by weight of said broke.

61. (Previously Presented) A method as defined in claim 47, wherein said latex polymer comprises from about 10% to about 40% by weight of said broke.

62. (Previously Presented) A method as defined in claim 47, further comprising forming a paper product that contains said fiber aggregates.

63. (Previously Presented) A method as defined in claim 62, wherein said paper product comprises a multi-layered paper web.

64. (Previously Presented) A method as defined in claim 63, wherein said fiber aggregates are incorporated into an inner layer of said multi-layered paper web.